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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,700	08/25/2003	Masahiko Kubota	03500.015453.2	1549
5514	7590	09/26/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			LIANG, LEONARD S	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2853	

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,700

Applicant(s)

KUBOTA ET AL.

Examiner

Leonard S. Liang

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 62-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 62-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Specification and Drawings***

The lengthy specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Specifically, the applicant is required to match all references in the drawings to the references in the specification. In the applicant's response to arguments, the applicant noted, "Turning to a formal matter involving the drawings, the summary of the instant Office Action includes a check mark indicating that the drawings have been objected to. However, the undersigned can not find any explanation of such an objection anywhere in the Office Action, and consequently believes that this check mark was made inadvertently." The previous objection was not made inadvertently. This jumbo specification objection was the objection given in the last Office Action. What this objection means is that the applicant's specification is so large that the burden is on the applicant to correct all minor informalities in the specification and drawings. As the examiner noted previously and here notes again, the applicant is specifically requested to match all the references in the drawings with the references in the specification. If the examiner does not receive any corrections from the applicant in the next response, the examiner will assume that the applicant has corrected all minor informalities in the specification and drawings and remove the pending objection.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 68 and 70 are rejected under 35 U.S.C. 102(e) as being anticipated by Siwinski et al (US PgPub 20020015066).

Siwinski et al discloses:

- {claim 68} An ink jet recording system provided with a plurality of ink jet heads for performing color recording with an ink jet printer, recording being made by mounting ink tanks storing ink to be discharged corresponding to each of ink jet heads (figure 2, reference 14a-d, 22)
- {claim 70} wherein the response condition is set by differentiating a digital ID identification (paragraph 0015)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

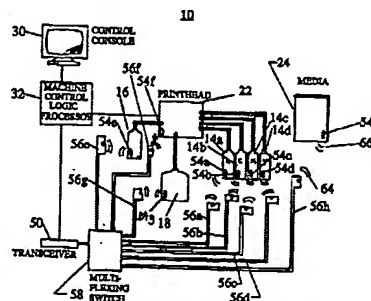
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 62-65 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski et al (US PgPub 20020015066) in view of Havens (US Pat 4053854).

Siwinski et al discloses:

- {claim 62} A communication system in which a solid semiconductor element is used (figure 2; paragraph 0015); a plurality of liquid containers in which the respective solid semiconductor elements are disposed (figure 2; reference 14a-d); information acquiring means for acquiring the information in the container (paragraph 0015); receiving means for receiving a signal from the outside (figure 2, reference 56a-d; paragraph 0015); information communicating means for transmitting the information to the outside when a predetermined response condition is satisfied (figure 2, reference 54a-d); outside communication means for bidirectionally communicating with the receiving means and the information communicating means of the solid semiconductor element (figure 2, reference 30)



- {claim 63} wherein the response condition differs with each container (paragraph 0014)

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- {claim 64} wherein the response condition comprises an electromagnetic induction frequency (paragraph 0014)
- {claim 65} wherein the response condition comprises a communication protocol (paragraph 0015)
- {claim 69} an ink jet recording system (as applied to claim 68 above)

Siwinski et al differs from the claimed invention in that it does not disclose:

- {claim 62} an oscillation circuit formed in the semiconductor element and provided with a conductor coil; an outside resonance circuit, disposed outside the plurality of liquid containers, for generating a power with respect to the oscillation circuit of the solid semiconductor element by electromagnetic induction
- {claim 69} wherein the response condition is set by differentiating a resonance frequency by changing a winding number or a length of coil of the solid semiconductor element

Havens discloses:

- {claim 62} an oscillation circuit formed in the semiconductor element and provided with a conductor coil (column 1, lines 5-61; conductor coil is inherent to oscillation circuit); an outside resonance circuit, disposed outside the plurality of liquid containers, for generating a power with respect to the oscillation circuit of the solid semiconductor element by electromagnetic induction (abstract)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Havens into the invention of Siwinski et al.

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The motivation for the skilled artisan in doing so is to gain the benefit of providing transmission that is not heavy, large, complicated, and expensive (column 1, lines 22-23). The combination naturally suggests that the response condition is set by differentiating a resonance frequency by changing a winding number or a length of coil of the solid semiconductor element (this is known to one of ordinary skill in the art as a consequence of using an oscillation circuit).

Claims 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski et al (US PgPub 20020015066) in view of Havens (US Pat 4053854), as applied to claim 62 above, and further in view of Cheng (US Pat 5743138).

Siwinski et al, as modified, teaches all limitations of the claimed invention except for the following:

- {claim 66} wherein a gravity center of the solid semiconductor element floating in the liquid is positioned below a center of the element, and the floating element rocks stably without rotating in the liquid
- {claim 67} wherein a metacenter of the solid semiconductor element is constantly positioned above the gravity center of the solid semiconductor element

Cheng discloses:

- {claim 66} wherein a gravity center of the solid semiconductor element floating in the liquid is positioned below a center of the element, and the floating element rocks stably without rotating in the liquid (column 1, lines 29-58)

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- {claim 67} wherein a metacenter of the solid semiconductor element is constantly positioned above the gravity center of the solid semiconductor element (column 1, lines 29-58)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Cheng into the invention of modified Siwinski et al. The motivation for the skilled artisan in doing so is to gain the benefit of allowing the semiconductor element to avoid contact with the ink reservoir.

Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski et al (US PgPub 20020015066) in view of Cheng (US Pat 5743138).

Siwinski et al discloses, with respect to claim 71, an ink jet recording system (as applied to claim 68 above).

Siwinski et al differs from the claimed invention in that it does not disclose:

- {claim 71} the solid semiconductor element has a hollow portion to float on the ink surface or in a predetermined position in the ink, a gravity center of the solid semiconductor element is positioned below a center of the element, and a metacenter of the element is constantly positioned above the gravity center of the solid semiconductor element

Cheng discloses:

- {claim 71} the solid semiconductor element has a hollow portion to float on the ink surface or in a predetermined position in the ink, a gravity center of the solid semiconductor element is positioned below a center of the element, and a

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metacenter of the element is constantly positioned above the gravity center of the solid semiconductor element

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Cheng into the invention of modified Siwinski et al. The motivation for the skilled artisan in doing so is to gain the benefit of allowing the semiconductor element to avoid contact with the ink reservoir.

Response to Arguments

Applicant's arguments with respect to claims 62-71 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kitamura et al (US PgPub 20020105474) discloses an antenna device.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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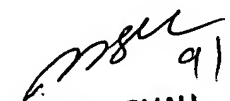
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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9/18/06
MANISH S. SHAH
PRIMARY EXAMINER